

Section 9 Technical Specification

TEST EQUIPMENT USED

Bruel & Kjaer	Distortion Measurement Control Unit Type 1902
Bruel & Kjaer	Heterodyne Analyzer Type 2010
Bruel & Kjaer	50dB Log Potentiometer
Bruel & Kjaer	Level Recorder Type 2307
Radford	Distortion Factor Meter DMS Series 3
Radford	Low Distortion Oscillator LDO Series 3.
Hewlett Packard	Oscilloscope Type 1740A
CGS	Non Inductive Load Resistors.

SPECIFICATION

Power Output at Clip Point	340W RMS into 4 ohms 210W RMS into 8 ohms 110W RMS into 16 ohms
Maximum Power Output	500W RMS into 2.5 ohms
Harmonic Distortion	Less than 0.02% 10Hz to 10KHz at all levels up to clip point. Typically 0.005% at 300W into 4 ohms at 1KHz.
Intermodulation Distortion (60Hz - 7KHz 4 : 1)	Less than 0.02% from 0.1W to 200W into 8 ohms.
Transient Intermodulation Distortion	Of a very low order. No measurement standards exist to date. (See Text).
Frequency Response	± 0.2 dB D.C. to 20KHz at 1W into 8 ohms. ± 1 dB 10Hz to 20KHz A.C. coupled.
Power Response	+0dB, -1dB D.C. to 20KHz at 180W into 8 ohms. +0dB -1dB 10Hz to 20KHz A.C. coupled.
Stability	Unconditionally stable into loads of all impedance characteristics.
Slew Rate	10V/ μ S. Slew rate is the maximum value of $\frac{dV}{dt}$ of the output signal.
Rise Time (10% - 20%)	10 μ S Deliberately Specified.
Settling Time	20 μ S Maximum into 8 ohms and 1 μ F in parallel.
Noise	105dB below 180W into 8 ohms 10Hz to 20KHz (See input sensitivity.)
Damping Factor	Greater than 300 D.C. to KHz.
Output Protection	Short circuit, mismatch and open circuit protected. Amplifier will drive completely reactive loads.
Input Sensitivity	High sensitivity input. 0.75V for 300W into 4 ohms.
Input Impedance	25K ohms Gain control minimum, 15K ohms Gain control maximum.
Power Supply	1KVA Toroidal mains transformer for minimum hum field. Two massive computer grade reservoir capacitors.
Power Required	Less than 50.VA quiescent, including fans. 470 VA at full output into 4 ohms (one channel driven.)
Cooling	F.C.D. Force Cooled Dissipators carrying a total of 12 power transistors, providing a dissipation capability of 3KW.
System Protection	Thermal sensors shut the amplifier down if temperature rises due to a prolonged fault condition or fan failure. Automatic re-set after system cool-down.
Controls	Independent Gain control on each channel.
Connectors	Inputs $\frac{1}{4}$ " Standard Jacks. 7 pin DIN Connector. Outputs - Coloured Binding Posts. Mains Input - 3 Pin Euroconnector.